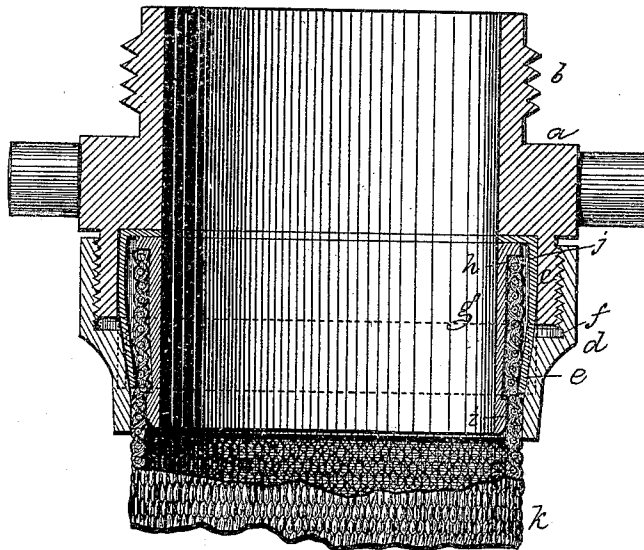


A. J. MORSE.
HOSE-COUPLING.

No. 172,470.

Patented Jan. 18, 1876.



Witnesses.
L. H. Cratimer.

W. G. Pratt

Inventor.

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UNITED STATES PATENT OFFICE.

ANDREW J. MORSE, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN HOSE-COUPPLINGS.

Specification forming part of Letters Patent No. 172,470, dated January 18, 1876; application filed December 21, 1875.

To all whom it may concern:

Be it known that I, ANDREW J. MORSE, of Boston, Suffolk county, Massachusetts, have invented an Improvement in Hose-Couplings, of which the following is a specification:

This invention relates to hose-couplings, the object being to cap or cover the hose end, and hold it firmly between rings fitted within and outside the hose, and made to compress and hold the hose end, by compressing the outer ring against it, or by expanding the inner ring. The upper ends of the rings are provided with flanges, and the outer end of the hose-capping rings is compressed by the action of an inclined binding-ring that forces inward and compresses the substance of the ring, as the binding-ring is attached to the coupling-section.

The drawing shows a section of one end of a coupling provided with the improvement.

The coupling-section *a* is provided with screw-threads *b*, to receive the usual loose-running section, not shown, and at its opposite end it has the screw-threaded projection *c*, to which is attached the binding-ring *d*, provided at its inner upper portion with screw-threads to fit the screw-threads in projection *c*, and below the shoulder *f* of the binding-ring that meets the end of *c*, the interior piece of the binding-ring is inclined, as at *e*, becoming smaller toward the lower end of the binding-ring. The inner capping and holding ring *g*, has, at its upper end, a flange, *h*, and at its lower end an annular projection, or series of projections, *i*. The outer capping-ring *j* has, at its upper end, an inwardly-projecting flange adapted to extend over and form a bearing for the flanged portion of *g*, the flange of the outer ring *j* resting against a shoulder on the inner portion of the coupling-section. The hose *k* is suitably lined with rubber, or it may be of rubber or fibrous material, or of other usual hose-fabric.

When this hose is to be coupled, the binding-ring is passed over the end, then the inner ring *g* is inserted within the hose, the flange *h* preferably meeting the hose end, and then the outer ring *j* is passed over the outer portion of the end of the hose and its contained inner ring. In this position the hose-end is confined between the outer and inner faces of the two cylindrical rings, and the lower end of *j* terminates,

preferably, a little above the annular projection *i*. The coupling-section is now applied, its screw-threaded portion *c* is connected with the upper screw-threaded portion of the binding-ring, and the binding-ring, as it is drawn longitudinally over the hose and outer ring *j*, (the upper end of the latter ring resting against the shoulder on the coupling-section,) compresses the lower end of the outer ring *j* from the position shown in dotted lines to the position shown in full lines, the lower end of the outer ring closing in upon the hose more or less according to the degree of inclination of *e* or its length, and the end of *j* meets the upper portion of the annular projection, substantially as shown. A space is left between the upper portions of the rings *g j*, to receive the portion of the hose crowded from the nipped or compressed portion toward the end of the hose.

This invention is an improvement on Patent No. 166,130, heretofore granted to me, and is specially adapted to hold rubber-lined or rubber or fibrous hose, and it will be noticed that the capping-portions *g j*, in this application of my invention, are immovably fixed by contraction of a ring, and it will be noticed, also, that the capping parts, as in that patent, have no screw-threads, nor do they rotate when being attached to the hose, so as to disconnect the rubber lining from the fibrous material or to cut the hose, and, in this invention, the coupling-section may be removed from the hose for repairs, and yet leave the end of the hose capped.

The binding-ring may be provided with spanner projections, as shown on the coupling-section.

The inner capping-ring might be expanded and the outer ring might be somewhat tapered so as to grasp the hose end, and the rings so fitted might be placed between the binding-ring and coupling-section, constructed as described, but, in such case, the outer capping-ring would be shaped before applying the binding-ring, as it is now shown as shaped by the action of the binding-ring.

I claim—

1. The outer and inner capping-rings, in combination with the coupling-section and its threaded projection *c*, and the screw-threaded internally-beveled or inclined binding-ring,

combined and adapted to compress the outer capping-ring by the movement of the binding-ring, substantially as described.

2. A piece of hose, and an inner and outer capping-ring connected positively thereto by compression or expansion of one of the rings, in combination with a removable coupling-section and a removable binding-ring attached only to the coupling-section, and adapted to

surround the outer holding-ring, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ANDREW J. MORSE.

Witnesses:

G. W. GREGORY,
L. H. LATIMER.